

translation

PATENT COOPERATION TREATY

PCT

PCT Application
PCT/CN2003/001121



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FPCH03160043		FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CN03/01121		International filing date (day/month/year) 25.Dec.2003(25.12.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC See supplemental box			
Applicant MEI, Xiuquan et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 22.Jul.2005(22.07.2005)		Date of completion of this report 03.Apr.2006(03.04.2006)	
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Box No. I Basis of the report

1. With regard to the **language**, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages * _____ as amended (together with any statement) under Article 19
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims 1-11	YES
	Claims	NO
Inventive step (IS)	Claims 1-11	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-11	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

D1: CN1297085A

None of documents cited in the international search report disclose the method and the pulp according to the claims 1-11 respectively, therefore claims 1-11 have novelty under PCT Article 33(2).

D1 discloses a method of using activated ozone in bleaching paper pulp. The method comprises the following steps: a) treating pulp with oxidizing agent to oxidize lignin; b) extracting said pulp by an alkaline extraction treatment; c) then, adding mineral acid and mixture of ethanol/DMSO with ozone gas stream into the pulp slurry, followed by neutralizing the pulp with an alkali; and d) bleaching the pulp with hydrogen peroxide or chlorine dioxide.

Whereas, the method according to the present application comprises the following steps: impregnating the raw material in presence of active oxygen A and cellulosic protector composed of metallic ion and it's ligand; and grinding said material with active oxygen A, followed by grinding with active oxygen B. D1 does not disclose or suggest the method according to the present application. Thus, the technical schemes of claims 1-11 are not obvious to a skilled person on the basis of D1. Therefore, claims 1-11 have inventive step under PCT Article 33(3).

The subject matters of claims 1-11 appear to be industrially applicable, therefore they have industrial applicability under the terms of Article 33(4)PCT.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: International Patent Classification (IPC)

D21C3/00 (2006.01) i

D21C9/147 (2006.01) i